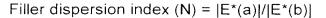## ABSTRACT

A kneading status evaluation method for a rubber composition containing at least a rubber and a filler comprises the steps of a complex modulus measurement step (1) in which a complex modulus $E^*(a)$ at a given strain εa and a complex modulus $E^*(b)$ at a given strain εb differing from the strain εa of the rubber composition (I) are measured, a filler dispersion index calculation step (2) in which a filler dispersion index (N) of the rubber composition (I) is calculated with complex elastic moduli $E^*(a)$ and $E^*(b)$ obtained in the previous step (1) according to the equation shown below, and a comparison step (3) to compare a predetermined target filler dispersion index (R) with the filler dispersion index (N) calculated in the previous step (2), and/or a complex viscosity coefficient measurement step (5) to measure a complex viscosity coefficient η^* of the rubber composition (I) under at least two different temperatures, and a kneading status monitor index calculation step (6) to calculate a kneading status monitor index (M) of the rubber composition (I) according to the equation shown below on the basis of a temperature dependency of the complex viscosity coefficient η^* obtained at the previous step (5), and a comparison step (7) to compare a predetermined target kneading status monitor index (P) with the kneading status monitor index (M) calculated in the previous step (6);

Filler dispersion index (N) = $|E^*(a)|/|E^*(b)|$

$|\eta^*(T)| = A \exp(-M/RT)$

where η^*: complex viscosity coefficient, A: proportional constant, R: gas constant, and T: measuring temperature (°K).

A manufacturing method for a rubber composition is characterized by carrying out the evaluation methods described above.

Implementation of the evaluation methods described above makes it possible to evaluate objectively a kneading status of a rubber composition containig at least a rubber and a filler. Further, implementation of the manufacturing methods described above can provide a rubber composition having good filler dispersion and a stable kneading status.